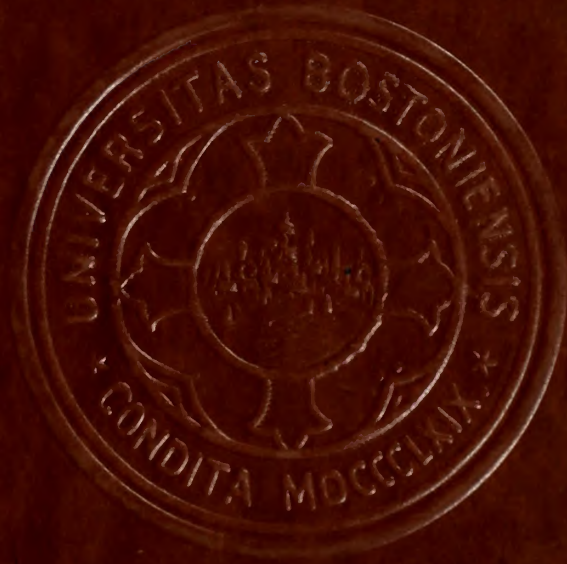


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One and two room rural schools of Taunton, Middleboro,  
Bridgewater, Norton and Berkeley, Massachusetts.



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ONE AND TWO ROOM RURAL SCHOOLS  
OF  
TAUNTON, MIDDLEBORO, BRIDGEWATER, NORTON  
AND  
BERKELY, MASSACHUSETTS

A Thesis Presented for the  
Degree of Master of Education

by

Edward B. Sheridan, B. S.

Boston University  
School of Education

1942

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## One and Two Room Rural Schools

### Introduction

Many, probably most, rural school grounds are entirely inadequate both as to size and the nature of the plot of ground on which the house stands. It is quite common to find a school yard of less than an acre, and it often seems that the poorest land in the district had been selected for the site. The school lot is often small, rough and altogether unfitted for a playground. There is no place to play the ordinary games; and as for a baseball diamond, that is entirely out of the question. Certainly the welfare of the children was not considered when such sites as these were chosen.

In looking for a school site it should be remembered that it should consist of not less than two acres, so that there will be ample space for a baseball diamond and room on the sides for games for other children. The building should be set far enough to the front of the grounds, so that, while allowing for a good lawn on the side toward the road, there will also be plenty of room in the rear for the playground. The surface should be even, free from stones, and well drained.

There should be no trees to obstruct play. The suitable place for trees is around the sides or, for ornamental purposes, on the lawn in front. There should be well-rooted sod, thick and capable of withstanding the wear and tear of children's play.

No walks should run directly across the playground; at least not diagonally across.

Introduction

Many, probably most, rural school grounds are entirely inadequate both as to size and the nature of the plot of ground on which the school stands. It is quite common to find a school yard of less than an acre, and it often happens that the poorest land in the district has been selected for the site. The school has to often wait, rough and irregular, until, but for a playground. There is no place to play the ordinary games, and as for a baseball diamond, that is entirely out of the question. Not only the welfare of the children was not considered when such sites were chosen.

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There should be no more than about fifty feet between the building and the rear line of the grounds, so that the building will be well-protected and, when and capable of being reached by the rear and side of children's play.

The walls should be directly across the playground, at least not diagonally across.

### School Buildings and Equipment

School buildings, like all forms of architecture, reflect the philosophy of the period in which they were built. The first American school was built for a single curriculum which provided for few activities. Consequently, the first buildings were the "box car" pattern, unattractive, inadequate even for a traditional program, and limited and meager in their equipment. Various plans have been developed in an effort to correct existing mistakes and to prevent new ones. These plans are as follows: (1) consolidation of small schools with large ones and the provision of state building aid for them; (2) state aid for the improvement and building of the small school; (3) the standardization of the small rural school through score cards, and the setting up of standards of varying degrees; (4) the provision by legal enactment for the approval of all plans and the acceptance of school buildings by the state departments of education.

The modern program of education involves many changes in school architecture. While few changes in school buildings are evident, as yet, the fundamental changes in philosophy and curriculum indicate that architecture in time will reflect both.

The present status of the small rural school building falls far below the ideal of the building constructed for a modern progressive program of education, as well as being inadequate for a traditional program. Knowledge of this status is derived from (a) the studies made by the United States Office of Education; (b) by the use of school score

## School Buildings and Equipment

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teconomy of the period in which they were built. The latest American

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follows: (1) consolidation of small schools into large ones and the

provision of state building aid for them; (2) state aid for the improve-

ment and building of the small school; (3) the standardization of the

small rural school through state orders, and the setting up of standards

of wiring systems; (4) the provision of local equipment for the

approval of all plans and the supervision of school buildings by the

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The modern program of education involves many changes in school

architecture. While the changes in school buildings are evident, as yet,

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by the United States Office of Education; (b) by the use of school plans

cards; (c) through school surveys.

Modern education requires that the school become a three-fold combination -- a laboratory, a home for children, and a community center for adults.

In contrast to the old buildings, the schoolhouses that are built today have attractive exteriors. Porches are common. Besides adding to the appearance of the building, a porch provides a shelter in which pupils may pause in stormy weather to shake snow or rain from their clothing before entering the building.

The arrangement of windows has been improved. Instead of being spaced at equal intervals along opposite sides of the building, they are arranged close together in groups on one side and one end of the nearly square building.

The pioneer schoolhouse consisted of one room only. Modern rural schools have a number of rooms in addition to the main schoolroom. These rooms are used as cloakrooms, kitchen, library, workroom, toilets and supply rooms.

Basements under the entire building are now common. The best arrangement is a rather shallow basement with the wall extending three and a half to four feet above the ground level. This gives space for basement windows sufficiently high to admit light enough to make the basement a pleasant room. In many schools the basement is partitioned off and serves as kitchen, workshop, playroom, furnace room, and fuel room.

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off and serves as kitchen, workshop, playroom, storage room, and fuel

### Lighting

Much attention is now given to the proper lighting of schoolrooms. The space between windows should be very narrow. The window sill should be as high as the heads of the pupils as they sit in their seats. The windows should extend nearly to the ceiling so that plenty of light may strike the ceiling and be reflected down upon the desks of the pupils. It is generally agreed that the glass area of the windows in the main schoolroom should be equal to one-fifth or more of the floor area. The front wall of the room, the one faced by the pupils as they sit in their seats, should have no windows.

All windows should be supplied with adjustable shades. The old plan of placing a roller shade at the top of the window is not good as the best light is that which comes in at the top of the window. The best arrangement is to place the roller at the bottom of the window. With this arrangement the shade can be raised to cover as much of the window as necessary.

### Heating

The unjacketed stove is found in very few rural schools that have been built since 1920, but in some of the older ones it is still in use. This type of heater is unsatisfactory as it radiates heat in all directions but no very strong currents are set up.

The next best type of heater for rural schools is known as the room heater and a great many rural schools are equipped with them. Where this type of heater is to be installed, the chimney is built double with

### Lighting

Good illumination is now given to the proper lighting of schoolrooms. The space between windows should be very narrow. The windows should be as high as the heads of the pupils as they sit in their seats. The windows should extend nearly to the ceiling so that plenty of light may strike the ceiling and be reflected down upon the desks of the pupils. It is generally agreed that the glass area of the windows in the schoolroom should be equal to one-fifth or more of the floor area. The front wall of the room, the one faced by the pupils as they sit in their seats, should have no windows.

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### Heating

The suggested above is found in very few rural schools that have been built since 1920, but in some of the older ones it is still in use. This type of heater is unsatisfactory as it radiates heat in all directions, but no way except upwards and out of the room. The most best type of heater for rural schools is known as the room heater and a great many rural schools are supplied with them. This type of heater is so constructed, the chimney is built double with

a partition separating it into two chimneys. One of these is to carry off the smoke and the other is to remove foul air from the room. The heater should be placed in one corner of the room out of the way.

This type of heater consists of a specially built stove with a jacket around it, extending from the top of the stove to within eight or ten inches of the floor. A large pipe, twelve inches in diameter, extends from the inside of the jacket (near the bottom) out through the wall of the building. This pipe is for the purpose of drawing fresh air from out-of-doors into the jacket, where it is heated and becomes part of the circulating air of the room.

Near the floor of the room should be located a foul-air outlet which connects with the foul-air duct in the chimney. This opening should be ten or twelve inches square and should be covered with a screen.

Many rural schools are supplied with a basement furnace and these, of course, are to be preferred because they leave the schoolroom free from the unsightly heater and thereby provide more space in the room. Most of these furnaces are of the hot air type with hot air pipes leading from the top of the jacket to registers placed in the schoolroom floor or wall. The cold air ducts lead from the floor down to the bottom of the jacket.

The heated air rises from the furnace and enters the schoolroom at the top and presses down the heavier air below which enters the cold air ducts and is carried to the furnace to be heated -- thus a circulation of air is set up.

a partition separating it into two chambers. One of these is to carry  
all the waste and the other is to remove foul air from the room. The  
heater should be placed in one corner of the room out of the way.

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jacket around it, extending from the top of the stove to within eight or  
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part of the circulating air of the room.

Just on floor of the room should be located a foul-air duct which  
connects with the foul-air duct in the chimney. This ducting should be  
two or twelve inches square and should be covered with a screen.

Two vital details are supplied with a basement furnace and these,  
of course, are its gas-ventilating system and its exhaust system.  
From the gas-tight heater and flue pipe, which runs up the rear  
part of the basement are of the hot air type with hot air pipes leading  
from the top of the jacket to registers placed in the basement floor  
or wall. The cold air ducts lead from the floor down to the bottom of  
the jacket.

The heated air rises from the jacket and enters the room from  
at the top and passes down the heater air ducts which enter the cold  
air ducts and is carried to the furnace to be heated -- thus a circula-  
tion of air is kept up.

### Ventilation

The purposes of ventilation:

1. To remove odors and impurities from the air in the room.
2. To keep the air in motion.
3. To supply moisture for the air.

Window boards are recommended for rural schools. These boards are as long as the window is wide and are about eight or ten inches in height. When the window is raised, these boards are placed on edge in the opening and the window is shut down on them. The fresh air then comes in between the upper and lower sashes making a draft impossible.

In the jacket heater and furnace, there is a container for water which supplies moisture for the air. These should be kept filled at all times.

### Seating

The adjustable types of seats and desks are preferable. In seating children in the classroom the younger children should be seated nearest the windows as they are just learning how to use their eyes.

The seats should be placed in the room so that the windows are on the left side and at the rear of the room as the pupils sit in their seats.

It is recommended that the desks and seats be movable so that they may be placed in different parts of the room as a help in teaching different subjects.

## Ventilation

The purposes of ventilation:

1. To remove stale and impure air from the air in the room.
2. To keep the air in motion.
3. To supply oxygen for the air.

Windows should be recommended for rural schools. These windows are as long as the window is wide and are about eight or ten inches in height. When the window is closed, these boards are placed on edge in the opening and the window is shut down on them. The fresh air then comes in between the upper and lower sashes making a draft impossible. In the heated winter and summer, there is a constant flow of air when applied methods for the air. These should be kept filled at all times.

## Seating

The adjustable types of seats and desks are preferable. In seating children in the classroom the younger children should be seated nearest the windows so they are just learning how to use their eyes. The seats should be placed in the room so that the windows are on the left side and at the rear of the room so that pupils sit in their seats. It is recommended that the desks and seats be movable so that they may be placed in different parts of the room as a help in teaching different subjects.

### Drinking Arrangements

In schools where water is easily accessible a bubbler drinking fountain is desirable as this does away with the use of individual drinking cups. Whatever kind of water container a school uses, it should be thoroughly cleaned at frequent intervals.

### School Toilets

There are still a great many of the old outdoor toilets in use in rural districts. The majority of buildings erected since 1920 are provided with sanitary indoor toilets. When inside toilets are installed, thought should be given to their location. They should be as secluded as possible, but should be so located that the teacher can have supervision over them at all times. In order to prevent odors, the air vents should be unobstructed and should open well above the roof.

If outdoor toilets must be used the sanitary septic-tank toilet is the best type and has proved highly satisfactory. If specifications for this type cannot be obtained from the state board of education, they may be had by writing to Iowa State Teachers' College, Cedar Falls, Iowa.

### Blackboards

The best blackboard in use today is slate sawed into slabs and given a smooth finish. For rural schools the board should be four feet in width, and should be placed not higher than twenty-six inches from the floor to enable the small children to reach it.

A chalk tray at least three inches wide should be placed along the lower edge of the blackboard. There should also be an ample supply of

### Drinking Water

In schools where water is readily obtained in a public building fountain is desirable as this does away with the use of individual drinking cups. Whatever kind of water container a school uses, it should be thoroughly cleaned at frequent intervals.

### School Toilet

There are still a great many of the old outdoor toilets in use in rural districts. The majority of buildings erected since 1920 are provided with sanitary indoor toilets. When indoor toilets are installed, schools should be given to their location. They should be so constructed as possible, the school be so located that the teacher can have easy access over them at all times. In order to prevent odors, the air vents should be constructed and should open well above the roof.

If outdoor toilets must be used, the sanitary requirements for the best type and the most easily satisfactory. If specifications for this type cannot be obtained from the state board of education, they may be obtained by writing to Iowa State Teachers' College, Ames, Iowa.

### Blackboard

The best blackboard in use today is white enamel on slate and gives a smooth finish. For rural schools the board should be four feet in width, and should be placed not higher than twenty-six inches from the floor to enable the small children to reach it. A chalk tray at least three inches wide should be placed along the lower edge of the blackboard. There should also be an ample supply of

dustless crayon and noiseless erasers on hand.

### Playground Apparatus

Richmond in his bulletin on Rural School Playgrounds and Equipment writes as follows:

"The following equipment for the average one-room country school is suggested:

Two playground baseball bats; one pair of jumping standards; one sand pile; two seesaws; two swings; one turning bar; one volley ball, net, and posts; six bean bags for indoor use; one Games for the Playground, Home, School, and Gymnasium, by Miss Bancroft, published by The Macmillan Company."

The preceding list includes the minimum equipment and apparatus that should be placed in every school.

### School Library

The volumes considered essential in a school library are a dictionary, an encyclopedia written for elementary grade children, and an up-to-date atlas. The collection should also include ready reference books, especially the World Almanac, and a book of quotations. Books of nature study, travel, and life in foreign countries, and individual biographies of great figures inspiring to youth and written especially for children should be included in every efficient library collection. Modern and classic fiction should also be made available. Periodicals and magazines



and, if possible, a daily newspaper should also be part of the small library.

A permanent place for this modern laboratory, the library, should be provided. Of course, a separate room or alcove is to be preferred but if these are not available the most satisfactory solution to the problem is to set apart one corner of the classroom as a "library corner". Adequate equipment for the library corner can be secured at small cost. There should be book shelves low enough for the smallest child and a reading table and chairs for the use of primary children.

#### Hot Lunches

No activity at a rural school presents a greater problem in management than the noon lunch. The good resulting from a supervised lunch period and a hot dish may be summarized as follows:

1. There will be better order in school.
2. Pupils' health will be improved.
3. Eating at recess will not be so common.
4. The school work of the pupils will be improved.
5. The pupils get some training in table manners.
6. It is easier to keep the schoolroom clean.
7. Cooperation between the home and the school is encouraged.

In addition to supervising the noon lunch at school, many teachers make it a practice to serve a hot dish. The plans for preparing the hot dish vary considerably, but the following plans have been tried and found successful:



The School-Cooking Plan. By this plan the food is prepared and entirely cooked at school. In schools that are equipped with oil stoves and a supply of cooking utensils, the problem is not difficult.

The Mothers' Cooperative Plan. This plan has been very satisfactory in a great many districts. The mothers in the district take turns in preparing a hot dish for the school. The food is cooked at home and just before noon is taken to the school and served.

The Cooperation of Pupils. Training pupils in cooperation is one of the school's duties. Serving a hot dish at school provides opportunity for this training. Where this plan of cooking food at school is followed, the pupils do the work of preparing the lunch as well as clearing away afterwards. This training received at school enables them to be more helpful at home.

Signatures with chalk trays

Blackboard erasers

Shells, display for children's use and sets for teacher's use.

2 - bulletin boards

Wides, wall maps - world, continents, state, county, United States.

Pipeless ventilated wardrobe.

1 - steel filing cabinet, standard office size, with file cards, folders and envelopes.

Openward space for all books, supplies, and children's projects. The well-equipped school will need at least 120 feet of library and book shelving and 60 feet of deep shelving for paper and supplies.

Flag and staff

Autograph(or date) pen



## A List of Equipment Suggested for the Small Rural School

### Equipment Kept Mainly in the Classroom

Movable desks, table style, in five sizes (22", 23", 24", 25", 26"). All tops should be 18" x 24" and entirely flat, with edges and corners slightly rounded.

Chairs designed to promote comfort and correct posture. One chair for each child's desk and extra chairs for library table and class circle should be provided. Five or more sizes (12", 13", 14", 15", 16")

3 - teachers chairs for teacher and visitors

1 - teacher's desk - kneehole office type having two or more drawers fitted with locks.

2 - boards 18" x 6' hinged to sidewall so that they may be raised and supported by locking-elbow type hinged braces to provide extra table space or dropped out of the way like a drop-leaf table.

1 - sand table, 24" in height, for primary children

Blackboards with chalk trays

Blackboard erasers

Chalk, dustless for children's use and soft for teacher's use.

2 - bulletin boards

Globe, wall maps - world, continents, state, county, United States.

Noiseless ventilated wardrobes.

1 - steel filing cabinet, standard office size, with file cards, folders and envelopes.

Cupboard space for all books, supplies, and children's projects. The well-equipped school will need at least 120 feet of library and book shelving and 60 feet of deep shelving for paper and supplies.

Flag and staff

Hectograph(or ditto) pans

# A list of equipment suggested for the Small Model School

## Equipment kept mainly in the Classroom

Round table, table style, in five sizes (36", 32", 28", 24", 20"). All tops should be 18" x 36" and entirely flat, with edges and corners slightly rounded.

Tables designed to promote comfort and correct posture. One chair for each child's desk and other chairs for library table and other circles should be provided. Five or more sizes (12", 14", 16", 18", 20").

2 - teachers chairs for teacher and visitors

1 - teacher's desk - laminated office type having two or more drawers fitted with locks.

2 - boards 18" x 6' (inged or alinged) so that they may be raised and lowered by locking-type hinges to provide extra table space or dropped out of the way like a drop-leaf table.

1 - sand table, 24" in height, for primary children

Blackboards with chalk trays

Blackboard erasers

Chalk, dustless for children's use and soft for teacher's use.

2 - bulletin boards

Globe, wall map - world, continent's, state, county, United States.

Reference suggested vocabulary.

1 - steel filing cabinet, standard office size, with file cards, folders and envelopes.

Equipment space for all books, supplies, and children's projects. The well-organized room will need at least 100 feet of library and book shelves and at least 50 feet of deep shelving for paper and supplies.

Flag and staff

Geography (or other) map

Hectograph refill

Pencil sharpener

Pointer

Thermometer

Clock

Typewriter

3 - waste baskets

Teacher's rubber type chart printing outfit and stamp pad

Health cards

Permanent record cards

Teacher's plan book or desk file

Fire extinguisher

#### Library Supplies and Equipment (Books not included)

1 - (steel filing cabinet - also listed under classroom equipment) book cases or shelves within easy access of children

1 - library table and chairs for small children (round type)

1 - library table for larger pupils

12 - book ends

1 - desk card file or steel card cabinet

1 - accession book

Shelf labels (or Scotch tape and paper scraps or thumbtacks and paper scraps)

Book pockets (or heavy paper)

Loan cards

Filing cards

White ink



India ink

Librarian's lettering pens

Sponge

Brush

Colorless shellac

Transparent adhesive tape

Gummed sewed tape - for loose pages

Gummed mending tape

Gummed binding tape

#### Equipment and Supplies that should be in the Furnace or Fuel Room

1 - furnace or jacketed stove with approved properly installed fresh air inlet, foul air outlet, stovepipe, and chimney, and humidifier

1 - stove poker

Concrete floor of zinc sheet underneath stove or furnace

Fuel room (near stove or furnace) of sufficient size to hold the year's supply of fuel

1/2 cord of dry kindling wood

2 cords dry wood (more wood and less coal in warm climates)

4 - 12 tons anthracite coal (depending upon climate, size of building, and efficiency of stove or furnace and janitor or teacher. More will be required in very severe climates.)

1 - shovel

#### Equipment and Supplies for Entry, Coatrooms and Toilets

Teacher's coatroom equipped with rod, coat hangers, hooks and hat shelf.

Children's coatrooms (Noiseless, warmed and ventilated wardrobes)

Rods

Coat hangers-for each child



Hat shelf or rack - space for each child

Rack for rubbers - space for each child

Umbrella rack or drip pan

1 - door mat

1 - outside flag

1 - school bell

#### Equipment Where Running Water Is Installed

2 - flush toilets - boys' and girls' separate - low toilets or curved foot stools for convenience of small children

2 - lavatories (low enough to be reached by all unless footstools are used by smallest children)

1 - drinking fountain

1 - sink

#### Equipment Where Running Water Is Not Installed

1 - Water pump. - Eave troughs and fittings

1 - cistern or storage tank for rainwater

1 - sink provided with straight drain pipe leading to rock filter and drain bed or cess pool

1 - stone jar for drinking water

2 - water pails

1 - wash bench

3 - wash basins

2 - chemical toilets properly installed or ventilated open-pit toilets suitably concealed

1 - cess pool, septic tank, or approved drain

2 - mirrors placed at height convenient for children's use



- 2 - toilet-paper holders - soft tissue toilet paper
- 1 - paper towel holder - paper towels
- 1 - liquid soap container

Supplies and Equipment which should be found in Janitor's Room, Tool, and Supply Closet

- 1 - eighteen inch long handled floor brush
- 1 - fourteen inch long handled floor brush
- 1 - counter brush
- 1 - heavy broom
- 1 - light broom
- 1 - heavy dustpan
- 1 - window squeegee with both short and long handles
- 1 - large wash basin
- 1 - mop
- 1 - mop pail and wringer
- 10 yds. cheesecloth for dusters
- 1 - ten-foot step ladder
- 1 - long handled coal and snow shovel
- 1 - axe
- 1 - hatchet
- 1 - coal hod
- 1 - ash sifter
- 1 - incinerator
- 1 - lawnmower
- 1 - garden rake



- 1 - hoe
- 1 - garden trowel
- 1 - pr. pruning shears
- 1 - long handled pointed shovel
- 1 - stove shovel
- 1 - barrel soft wood sawdust or sweeping compound
- 5 gals. of floor oil
- 1 qt. mineral oil or furniture polish
- 2 qts. clear ammonia
- 2 qts. compound solution of creosol or disinfectant
- 100 lbs. lime or chemical recommended for type of chemical toilet in use
- 1 qt. ink bottle with filler top - ink or ink powder
- 1 - fireproof metal container for oiled dust cloths
- 1 pr. rubber gloves
- Extra window glass and putty
- Extra fuses and electric light bulbs

#### Playground Equipment for Outdoor Use - Other Essentials

- 1 - sandbox 8' x 8' x 10' deep for primary children
- 2 - cubic yards of clean sand
- 2 - soccer balls
- 1 - ball bladder (extra)
- 1 - bicycle pump
- 2 - indoor baseballs
- 1 - bat
- 1 - catcher's glove



2 - 3 swings

2 - see-saws

Rope

3 - rubber balls (3", 6", 16") for primary children

Shade trees

Drained play area - as level as possible

Parking area

Garden

Fence if traffic hazard is present

Outdoor table and benches

### Indoor Play Equipment

Primary children's corner featuring a set-up for (1) rest, (2) educative self-checking seatwork, and (3) quiet self-amusement as follows:

washable rug

blanket

hassock, ottoman, or upholstered footstool

materials for building

primary work table with linoleum top

cupboard space for books, materials, games, tools, etc.

games such as dominoes, ring toss, jigsaw puzzles, etc.

materials such as clay, enlarged beads, colored sticks, counting blocks, crayons, paste, and paper

playthings such as washable toy animals, dolls, doll dishes, peg board, erector sets, etc.



### Supplies and Equipment Used Mainly in Industrial Arts

Work bench planned to hold all tools required in the small school.

Vice	Level
Hammer	Saw
Screwdriver	Coping saw
Bitstock	Coping saw blades
Bits	Compass saw
Pliers	Assorted round headed screws, sizes 1-12
Wire cutters	Nails, sizes 1/2", 3/4", 1", 1 1/2"
Steel square	Brads - 1/2"
Chisels - 1/2 inch and 1/4 inch	Glue
Gouge - 1/2 inch	Soft wood
Dividers - 8 inch	Needles, pins, safety pins, thread, thimbles, hand loom
Tape	Model airplane outfit (patterns, wood glue)
Linoleum scraps	Raffia
Soaps (fresh, large size Ivory) for carving	Turpentine
Passe Partout binding	Lacquers or enamels - variety of colors
Clay	Varnish
5 gal. crock to hold clay	Brushes for painting with lacquer and enamels
Warp - colored and white	Set of tools for block cutting
Rug wool - variety of colors	
Curved steel weaving needles	
Fiber weaving shuttles	
Cold water dyes	



### Neglect of the Rural School

In 1931-32 it was found that 90 per cent of the graded and 78 per cent of the high schools were rural and approximately half of the children of the United States attended these schools. Only two-fifths of the national expenditure for public schools was spent on schools of this type. This restricted expenditure suggested a restricted educational program and, since the restriction occurred in rural areas, it indicated an inequality of opportunity for rural children at many strategic points.

There are many ways of developing educational standards but the four criteria most often appearing are: (1) the length of the school term; (2) the estimated value of property per pupil enrolled; (3) the average yearly salary of the teacher; (4) the cost per pupil in daily attendance. The 1931-1932 Biennial Report of the United States Office of Education throws light upon these points. According to that report the average length of the urban school year for 1931-32 was 181.5 days, whereas the average length of the rural school was 159.9 days. The estimated value of property per pupil enrolled in an urban school was \$353, while for rural pupils it was \$143. The average yearly salary paid the urban teacher was \$1,951 while the rural teacher received \$930. Salaries of urban teachers were thus twice as large as those received by rural teachers. On a basis of a minimum salary of \$1000 a year, the average salary for city teachers in all but two states equalled or exceeded this amount, but in only twenty-three states did the average salary of rural school teachers equal or exceed \$1000.



The salary of the teacher, plus other current expenditures, plus capital outlay, made the cost per pupil in daily attendance in the city \$108.93 as compared with an expenditure of \$64.39 per pupil in the rural schools. By all the standards of measurement, the rural schools in comparison with urban schools ranked low.

Educational inequalities created by inadequate financial support have always been characteristic of small schools located in rural areas of the United States. A recent study covering seventy years of educational history in rural areas contained this statement concerning one source of inequality of the rural school -- the rural teacher. "Salaries remained consistently low throughout the study, ranging from an average of \$180 in the early part of the study to \$883 at the close of it. The rural teacher of 1930, like the rural teacher of 1860, was the youngest, the most inexperienced, the most unstable, the poorest trained, and the most poorly paid of any teacher in the profession."

Another way of measuring the strength of an institution is to gauge its ability to withstand the pressure of a national calamity. By such a measurement the small schools make a poor showing, as is revealed by a study of their reaction to the shock of the World War, and in recent years, by their low status during the years of the depression, 1930-3. All of the schools of the United States suffered during the late depression, but the small rural school suffered most. In 1933-34 the Joint Commission on the Emergency in Education of the National Education Association



and the Department of Superintendents announced that more than a million rural school children in the United States were being denied educational opportunities. Nearly all of these children had been enrolled previously in small rural elementary schools. In 1933 - 1934, 110,800 school children in the United States were denied opportunity to attend any school; 35,750 children attended school less than three months; and 914,500 children had six months of school or less. All of these were children served by the small rural school. Mr. W. H. Gaumnitz of the United States Office of Education, estimated that approximately 29,000 rural schools were operated during this period with an abnormal lack of equipment and supplies, and that about 27,000 buildings were lacking essential repairs.

Various sociological and educational efforts have been advanced to relieve the rural problem at its most distressing points. These were: (1) a back to the farm movement; (2) state educational surveys and campaigns which led in many instances to the passage of laws which brought about longer school terms, better attendance, and the building of more adequate school buildings; (3) definite standards set up for the rural school; (4) more centralized responsibility and professional administration and supervision; (5) more equitable distribution of funds and special aid for weak schools; (6) the consolidation of small schools into larger educational units; (7) requirements of specialized training for the rural teacher.

The consolidation of small schools into larger units was the plan that promised the most for rural schools and the movement has been popular



and rapid. Since 1917 it has been the cause of eliminating 4,000 small schools per year. In spite of this fact, however, there are certain factors which give the small school importance and significance. The small school is a persisting institution. This is evidenced by the fact that there are still remaining in the United States 138,542 one-teacher and 24,411 two-teacher schools and that over 50 per cent of all the school buildings in the United States are housing schools of less than three teachers. At the pre-depression consolidation rate of 4,000 schools a year, authorities estimate that forty years would have to elapse before all the small schools can be consolidated. Rural sociologists and educational authorities prophesy that such complete consolidation will never be possible in the United States as long as people live in areas served by some 100,000 one and two-teacher schools which exist because of population density and topography. A consideration of these factors leads one to the conclusion that the original educational pattern of an agricultural era will probably persist in an industrial civilization. Since it seems destined to serve large and significant numbers of American farm people, special study should be brought to bear upon its peculiar problems to the end that the democratic principle of equality of educational opportunity for all of the children of all of the people may become a reality rather than an idealistic dream.



### Method of Procedure

Letters were sent to supervisors of elementary education who are also supervisors of rural schools in most states, requesting a copy of plans of one and two-room rural schools that are approved by the State Board of Education. Altogether, letters were sent to thirty states and the answers received included plans approved by the different boards of education and in other cases rural school bulletins were received which gave a rating card by which buildings in that particular state were scored.

These rating cards usually were divided into six sub-divisions, as follows:

I	Grounds and Outbuildings	100 points
II	The School Building	180 points
III	Equipment	200 points
IV	School Library	110 points
V	Teacher and School Organization	310 points
VI	Community Cooperation	100 points

The score for a perfect building is one thousand points.

In scoring the buildings of the six towns listed in the title, two types of score cards were used -- one devised by G. D. Strayer and N. L. Engelhardt. This rating card was divided into five main sub-divisions, each sub-division included material or equipment that should appear in or about a modern school building.



Sub-divisions

I Site

II Building

III Service System

IV Class Rooms

V Special Rooms

The other rating card used was devised by a group of superintendents.

This was divided into the following sections and sub-sections:

Building

A General Construction

Thirteen sub-sections given

B General Condition

Fifteen sub-sections given

C Lighting

Eight sub-sections given

D Heating and Ventilation

Nine sub-sections given

E Sanitation

Seven sub-sections given

F Cloak - Rooms

Seven sub-sections given

G Closets

Three sub-sections given

Grounds

A Size, Location and Condition

Four sub-sections given



## B Appearance

Three sub-sections given

## C Playground Facilities

Six sub-sections given

## Educational Equipment

## A Furniture

Five sub-sections given

## B Blackboards

Five sub-sections given

## C Text Books and Supplementary Supplies

Thirteen sub-sections given

## D Miscellaneous

Twelve sub-sections given

The perfect score of each section was listed as:

Building	505 points
----------	------------

Grounds	135 "
---------	-------

Equipment	<u>360 "</u>
-----------	--------------

Total	1000 points
-------	-------------

Sample copies of each type of rating sheet used are given on the following pages, and it should be noticed that each item has a standard value and an assigned value that is to be given by the scorer.



## Score Card No. 1

Name of School \_\_\_\_\_ District \_\_\_\_\_ Village \_\_\_\_\_  
 Date \_\_\_\_\_ Scorer \_\_\_\_\_ State \_\_\_\_\_

Enrollment for a 5-year period					Average daily attendance(5-year period)				
Year									
Boys									
Girls									
Total									

	Original	First Addition	Second Addition	Total
Cost of Site	\$	\$	\$	\$
Length of Site	ft.	ft.	ft.	ft.
Width of Site	ft.	ft.	ft.	ft.
Area of Site	sq.ft.	sq.ft.	sq.ft.	sq. ft.
Cost of Building	\$	\$	\$	\$
Year of Construction				
Length of Building	ft.	ft.	ft.	ft.
Width of Building	ft.	ft.	ft.	ft.
Area Occupied by Building	sq.ft.	sq.ft.	sq.ft.	sq.ft.
Chief Material Used				
Number of Stories				
Length of Playground	ft.	ft.	ft.	ft.
Width of Playground	ft.	ft.	ft.	ft.
Area of Playground	sq.ft.	sq.ft.	sq.ft.	sq.ft.

Accessibility: Percentage of patrons residing within 1 mile radius \_\_\_\_\_  
 From 1-2 mile radius \_\_\_\_\_ From 2-3 mile radius \_\_\_\_\_ Above 3 miles from school \_\_\_\_\_

Percentage of Site Used For:

Lawns & Landscapes	Buildings	Recreation	Gardening	Total
%	%	%	%	%

Name the kinds of playground apparatus and number of each \_\_\_\_\_

List the attractive features of the environment \_\_\_\_\_

the unattractive and unsanitary features \_\_\_\_\_

Travel: Distance from nearest rural school \_\_\_\_\_; second nearest rural school \_\_\_\_\_;  
 third nearest rural school \_\_\_\_\_; from nearest village school \_\_\_\_\_.

Cite evidences of general character of community covering Buildings and Improvement

Highways \_\_\_\_\_ Productivity \_\_\_\_\_  
 Progressive methods \_\_\_\_\_

Fire Protection: List the rooms in which any of the following fire apparatus is found:

Fire extinguishers \_\_\_\_\_

Date of last filling of fire extinguishers \_\_\_\_\_

Fire hose \_\_\_\_\_ Automatic sprinkler \_\_\_\_\_

Is building fireproof \_\_\_\_\_; basement isolated from first floor \_\_\_\_\_;

basement ceiling fireproof \_\_\_\_\_; heating apparatus in fireproof enclosure \_\_\_\_\_

combustible and inflammable material stored in building \_\_\_\_\_.

Name of School		District		Village		State											
Date	Score	Enrollment for a 5-year period															
Year		Average daily attendance (5-year period)															
Boys																	
Girls																	
Total																	
Cost of Site		Original	Additions	Deletions	Total												
Length of Site																	
Width of Site																	
Area of Site																	
Cost of Building																	
Year of Construction																	
Length of Building																	
Width of Building																	
Area Occupied by Building																	
Other Material Used																	
Number of Stories																	
Length of Playground																	
Width of Playground																	
Area of Playground																	
<p>Accessibility: Percentage of persons residing within 1 mile radius _____</p> <p>From 1-2 mile radius _____</p> <p>From 2-3 mile radius _____</p> <p>Above 3 miles from school _____</p>																	
<p>Percentage of Site Used For:</p> <table border="1"> <thead> <tr> <th>Land &amp; Landmarks</th> <th>Buildings</th> <th>Restoration</th> <th>Planting</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								Land & Landmarks	Buildings	Restoration	Planting	Total					
Land & Landmarks	Buildings	Restoration	Planting	Total													
<p>Note the kinds of playground apparatus and number of each _____</p> <p>List the attractive features of the environment _____</p> <p>The unsatisfactory and unsanitary features _____</p>																	
<p>Travel: Distance from nearest rural school _____</p> <p>Distance from nearest village school _____</p> <p>Distance from nearest town school _____</p> <p>Give evidence of general character of community covering buildings and improvement _____</p>																	
<p>Highways _____</p> <p>Progressive methods _____</p> <p>Productivity _____</p>																	
<p>Fire Protection: List the rooms in which any of the following fire apparatus is found:</p> <p>Fire extinguishers _____</p> <p>Fire hose _____</p> <p>Automatic sprinkler _____</p> <p>Is building fireproof _____</p> <p>Is building isolated from first floor _____</p> <p>Is building ceiling fireproof _____</p> <p>Is building apparatus in fireproof enclosure _____</p> <p>Is building combustible and inflammable material stored in building _____</p>																	

Stairways	Number	Handrails Provided?	Kind	Height of Riser	Width of Tread	Length of Tread	No. of Treads	Maximum capacity of
To basement								Basement
To second floor								Second Floor

Are stairways enclosed \_\_\_\_\_ Fireproof \_\_\_\_\_ Of what material constructed \_\_\_\_\_  
 Has basement outside exit \_\_\_\_\_ List important locations where doors open inward \_\_\_\_\_  
 Are outer doors equipped with panic bolts \_\_\_\_\_ Are outside  
 fire escapes provided \_\_\_\_\_ Fire gongs \_\_\_\_\_ Dates of last 5 fire drills \_\_\_\_\_  
 Time required to empty building \_\_\_\_\_  
 Are outer doors locked during school hours \_\_\_\_\_ ?

Janitor Service: Does janitor remain on premises during school hours \_\_\_\_\_  
 Method of cleaning: Dry sweeping \_\_\_\_\_ Vacuum cleaner \_\_\_\_\_ Frequency of  
 mopping \_\_\_\_\_ Sweeping compound used \_\_\_\_\_ Ciled floors \_\_\_\_\_  
 Frequency of cleaning \_\_\_\_\_ Before school hours \_\_\_\_\_ After school  
 hours \_\_\_\_\_ During school hours \_\_\_\_\_ How long before or after \_\_\_\_\_  
 Dusting \_\_\_\_\_ Dry cloth \_\_\_\_\_ Oiled cloth \_\_\_\_\_ Not at all \_\_\_\_\_  
 What evidences of efficient cleaning service prevail \_\_\_\_\_

Check type of Artificial Lighting System used: Oil lamps \_\_\_\_\_ gas \_\_\_\_\_ electricity \_\_\_\_\_  
 Is the lighting direct, indirect, or semi-indirect \_\_\_\_\_ Number of electric  
 outlets in classrooms \_\_\_\_\_ Corridors \_\_\_\_\_ Is artificial light provided in  
 toilets \_\_\_\_\_ Adequacy \_\_\_\_\_

Schedule and Emergency Equipment: Type of bell used \_\_\_\_\_ Is community  
 telephone connection provided \_\_\_\_\_

Check type of Water Supply: Community water system \_\_\_\_\_ Deep driven or bored well \_\_\_\_\_  
 Dug well \_\_\_\_\_ Spring \_\_\_\_\_ Neighbor's well \_\_\_\_\_ Has pressure tank been in-  
 stalled \_\_\_\_\_ Gasoline pump \_\_\_\_\_ Motor \_\_\_\_\_ Date of last scientific testing of  
 water supply \_\_\_\_\_ Results \_\_\_\_\_ Name locations of drinking  
 fountains \_\_\_\_\_ Are these fountains sanitary \_\_\_\_\_  
 In good operating condition \_\_\_\_\_ Number of washbowls \_\_\_\_\_ Location \_\_\_\_\_  
 Soap provided \_\_\_\_\_ Towels \_\_\_\_\_ Kind \_\_\_\_\_ Hot water \_\_\_\_\_ Baths \_\_\_\_\_ Kind \_\_\_\_\_  
 Location \_\_\_\_\_

Toilet System: Location \_\_\_\_\_ Sanitary condition \_\_\_\_\_  
 No. of boys' toilet seats \_\_\_\_\_ Urinals \_\_\_\_\_ No. of girls' toilet seats \_\_\_\_\_  
 Toilet provisions for teachers \_\_\_\_\_ Janitor \_\_\_\_\_ Type of seats \_\_\_\_\_  
 Arrangement \_\_\_\_\_ Type of urinals \_\_\_\_\_ Arrangement \_\_\_\_\_ Seclusion \_\_\_\_\_  
 Entrances : Number of \_\_\_\_\_ Type \_\_\_\_\_ Condition \_\_\_\_\_

Type of foundation \_\_\_\_\_ Condition \_\_\_\_\_  
 Type of roof \_\_\_\_\_ Condition \_\_\_\_\_

Has the building a basement \_\_\_\_\_ What is its depth below grade \_\_\_\_\_  
 Ratio between window area and floor area of basement \_\_\_\_\_

List the uses made of basement \_\_\_\_\_

Has the building a vestibule \_\_\_\_\_ List the uses made of vestibule \_\_\_\_\_

Is vestibule painted \_\_\_\_\_ Color \_\_\_\_\_ Are separate cloakrooms provided \_\_\_\_\_  
 Number \_\_\_\_\_ Are hooks adjusted to height of children \_\_\_\_\_ Is natural light provided  
 in cloakrooms \_\_\_\_\_ Are cloakrooms under teacher control \_\_\_\_\_ Are cloakrooms  
 painted \_\_\_\_\_ Color \_\_\_\_\_

Corridors	Width	Length	Lighted	Used as Cloakroom	Obstruction
First floor					
2nd floor					

Check kind of Heating System: Wood stove \_\_\_\_\_ Gas stove \_\_\_\_\_ Jacketed heater \_\_\_\_\_  
 Hot air furnace \_\_\_\_\_ Steam boiler \_\_\_\_\_ Hot water boiler \_\_\_\_\_ Is is reported satis-  
 factory \_\_\_\_\_ By whom \_\_\_\_\_ List the rooms which cannot be satisfactorily  
 heated \_\_\_\_\_ What are the causes of unsatisfactory  
 heating \_\_\_\_\_ Is thermostatic control provided \_\_\_\_\_  
 Date of last official boiler inspection \_\_\_\_\_

Check kind of Ventilating System: Natural circulation \_\_\_\_\_ Window ventilators \_\_\_\_\_  
 Gravity system without exhaust accelerators \_\_\_\_\_ Mechanically furnished fresh air \_\_\_\_\_  
 supply \_\_\_\_\_ Mechanical exhaust of foul air \_\_\_\_\_ Is the system reported satisfactory  
 By whom \_\_\_\_\_



## DETAILS OF THE CLASSROOMS AND SPECIAL ROOMS

1. Room					
2. Grade					
3. Pupil capacity					
4. Pupil enrollment					
5. Dimensions Length, ft.					
6. Width, ft.					
7. Height ft.					
8. Floor area, sq. ft.					
9. Area per child of pupil capacity					
10. Area per child of enrollment					
11. Area per child, 40 in class					
12. Total cubical contents, cu.ft.					
13. Cu. ft. per child of pupil capacity					
14. Cu. ft. per child of enrollment					
15. Cu. ft. per child, 40 in class					
16. Number of windows, front					
17. left					
18. rear					
19. right					
20. No. of windows size x					
21. x					
22. x					
23. x					
24. Window glass area - sq. ft.					
25. Ratio window area to floor area					
26. Width of mullions -- inches					
27. Distance - 1st window-front wall					
28. Height of windows from floor					
29. Height of windows from desk tops					
30. Distance - window top to ceiling					
31. Finish of wall					
32. Color of wall					
33. Type of blackboard					
34. Height blackboards from floor					
35. Window shades - Type					
36. Color					
37. Book closet					
38. No. adjustable desks					
39. No. non-adjustable desks					
40. No. sizes non-adjustable desks					
41. Kind of teacher's desk					
42. Check rooms having clocks (✓)					
43. Check rooms having fire extinguishers					
44. Check rooms having artificial light					
45. Check rooms having thermometer					
46. List other equipment here					

# DETAILS OF THE CLASSROOMS AND SPECIAL ROOMS

1.	Room				
2.	Grade				
3.	Pupil capacity				
4.	Pupil enrollment				
5.	Dimensions length, ft.				
6.	Width, ft.				
7.	Height, ft.				
8.	Floor area, sq. ft.				
9.	Area per child of pupil capacity				
10.	Area per child of enrollment				
11.	Area per child, sq. in. class				
12.	Total useful content, sq. ft.				
13.	sq. ft. per child of pupil capacity				
14.	sq. ft. per child of enrollment				
15.	sq. ft. per child, sq. in. class				
16.	Number of windows, front				
17.	Left				
18.	Right				
19.	Height				
20.	No. of windows size	x			
21.		x			
22.		x			
23.		x			
24.	Window area - sq. ft.				
25.	Ratio window area to floor area				
26.	Width of window - inches				
27.	Distance - left window from wall				
28.	Height of window from floor				
29.	Height of window from desk top				
30.	Distance - window top to ceiling				
31.	Width of wall				
32.	Color of wall				
33.	Type of blackboard				
34.	Height blackboard from floor				
35.	Window shades - type				
36.	Color				
37.	Book shelf				
38.	No. adjustable desks				
39.	No. non-adjustable desks				
40.	No. size non-adjustable desks				
41.	Kind of teacher's desk				
42.	Check room having clock (✓)				
43.	Check room having fire extinguisher				
44.	Check room having artificial light				
45.	Check room having thermometer				
46.	List other equipment here				

SCORE CARD FOR RURAL SCHOOL BUILDING  
Score of Building

	1	2	3		1	2	3
I. SITE				E. Schedule & Emerg. Equip.			
A. Location				1. Clock			
1. Accessibility				2. Bell			
2. Environment				3. Telephone			
B. Drainage				4. First Aid			
1. Elevation				F. Water Supply System			
2. Nature of Soil				1. Drinking			
C. Size, Form and Use				2. Washing			
D. FLAGPOLE				3. Bathing			
II. Building				4. Hot & Cold			
A. Placement				G. Toilet Systems			
1. Orientation				1. Placement			
2. Position on Site				2. Fixtures			
B. Gross Structure				3. Adequacy			
1. Type				4. Seclusion, Condition, & Sanitation			
2. Material				IV. CLASS ROOMS			
3. Height				A. Arrangement			
4. Roof				B. Constr. & Finish			
5. Foundation				1. Size			
6. Walls				2. Shape			
7. Entrances				3. Floors			
8. Aesthetic Bal.				4. Walls			
9. Condition				5. Doors			
C. Internal Structure				6. Closets			
1. Stairs & Corr.				7. Black. & Bull. Boards			
2. Basement				8. Color Scheme			
3. Color Scheme				C. Illumination			
4. Attic				1. Glass Area			
III. SERVICE SYSTEM				2. Window Placement			
A. Heat & Ventilation				3. Shades			
1. Kind				D. Cloakrooms & Ward.			
2. Inst. & Dist.				E. Equipment			
3. Air Supply				1. Seats and Desks			
4. Fans & Motors				2. Teachers' Desks			
5. Temp. Control				3. Other Equipment			
B. Fire Protection				V. SPECIAL ROOMS			
1. Apparatus				A. For General Use			
2. Fireproofness				1. Play Room			
3. Exits				2. Community Room			
4. Light Inst.				3. Library			
C. Cleaning System				4. Lunchroom			
1. Kind & Equip.				B. Off. Consult. Rm.			
2. Efficiency				C. Other Sp. Ser. Rms.			
D. Artificial Light				1. Industrial Arts			
1. Gas or Elec.				2. Household Arts			
2. Outlets & Fixt.				3. Fuel Room			
3. Illumination				TOTALS			



## Score Card No. 2

BUILDING

General Construction	100
General Condition	135
Lighting	75
Heating and Ventilation	70
Sanitation	60
Cloakrooms	35
Closets	<u>30</u>
	505

GROUNDS

Size, location and Condition	50
Appearance	20
Playground Facilities	<u>65</u>
	135

EQUIPMENT

Furniture	55
Blackboards	50
Textbooks	145
Miscellaneous	<u>110</u>
	360



## TENTATIVE RATING SCALE FOR RURAL SCHOOL BUILDING AND EQUIPMENT

Building No. \_\_\_\_\_

In using this scale, the examiner should rate each item as either present or absent, i.e. the item should be rated as either the standard value or zero. In any given section or sub-section only one starred (\*) item should be checked.

I. BUILDING	Standard Value	Assigned Value
<u>A. GENERAL CONSTRUCTION</u>		
*1. Built of brick or stone	20	_____
*2. Built of cement or stucco	15	_____
*3. Frame construction	10	10
4. Concrete or stone foundation	10	10
5. Finished basement	10	0
6. Not less than 15 sq. ft. of floor space per pupil	15	10
7. Rooms not under 12 ft. in height	10	10
8. Well-constructed steps at no fewer than two entrances	5	5
9. Steps railed	5	0
10. Roof of fire resisting material	10	10
11. Stairways adequate in width (Complying with state law)	5	5
12. Stairways of proper pitch (complying) with state law	5	10
13. All doors open outward	5	0
Maximum	100	70

Note: On this score card the assigned values and the final score were those obtained in rating one of the buildings.



B. GENERAL CONDITION

*1. Less than 5 years old	30	<u>      </u>
*2. Between 6 - 10 " "	15	<u>      </u>
*3. " 11 - 15 " "	10	<u>      </u>
*4. " 16 - 20 " "	5	<u>5</u>
5. Windows tight with locks in working order	10	<u>10</u>
6. Doors tight with locks in working order	10	<u>10</u>
7. Roof water tight	10	<u>10</u>
8. Chimney in good condition	10	<u>10</u>
9. Gutters in good condition	10	<u>0</u>
10. Downspouts in good condition	10	<u>10</u>
11. Exterior well painted or stone work well pointed	15	<u>0</u>
12. Wood floors oiled or waxed	10	<u>10</u>
13. Ceilings clean	10	<u>10</u>
14. Walls clean	10	<u>10</u>
15. Walls painted in neutral glare proof tones	10	<u>10</u>
Maximum	135	<u>85</u>

C. LIGHTING

1. Window glass area at least 1/6 to 1/5 of floor area	20	<u>20</u>
2. Windows proper height from floor	10	<u>10</u>
3. Minimum of 20 foot candles for each desk	10	<u>0</u>
4. Artificial lighting glareproof	10	<u>0</u>
*5. Window light unilateral	15	<u>0</u>



*6. Window light from back and rear of pupil	10	<u>0</u>
7. Double roller shades for windows	5	<u>0</u>
8. Automatic light control	5	<u>0</u>
Maximum	75	<u>30</u>

#### D. HEATING AND VENTILATION

*1. Jacketed stove or furnace	15	<u>15</u>
2. with humidifier		
3. with fresh air intake	10	<u>10</u>
4. with foul air vent or outlet	10	<u>0</u>
*5. Steam or hot water heat	35	
6. with boiler in basement	10	
7. with modern ventilating system	15	
8. Windows can be raised and lowered	5	<u>5</u>
9. Windows equipped with window boards	5	<u>0</u>
Maximum	70	<u>20</u>

#### E. SANITATION

*1. Sanitary toilets conforming to state regulation	25	
*2. Outbuilding widely separated	5	<u>0</u>
3. well painted, free from defacement	5	<u>0</u>
4. Provisions for washing face and hands (basins)	10	<u>10</u>
5. Sanitary drinking water facilities	15	<u>15</u>
6. Paper towels	5	<u>5</u>
7. Soap dispenser	5	<u>5</u>
Maximum	60	<u>35</u>



F. CLOAK-ROOMS

1. Adequate in size	5	<u>5</u>
2. Separate rooms for boys and girls	5	<u>0</u>
3. Heated	5	<u>0</u>
4. Sufficient clothing hooks	5	<u>5</u>
5. Hooks correctly placed	5	<u>5</u>
6. Compartments for lunch boxes	5	<u>0</u>
7. Compartments for lunch boxes locked	5	<u>0</u>
Maximum	35	<u>15</u>

G. CLOSETS

1. Closet for general school supplies	15	<u>15</u>
2. Janitor's supply closet	5	<u>5</u>
3. Closet for books in each classroom	10	<u>10</u>
Maximum	30	<u>30</u>

II. GROUNDSA. SIZE, LOCATION AND CONDITION

1. In a safe location	20	<u>0</u>
2. Approximately 30 sq. ft. per pupil	15	<u>15</u>
3. Well drained	10	<u>10</u>
4. Surfaced	5	<u>0</u>

B. APPEARANCE

1. Neat and well cared for	10	<u>0</u>
2. Graded and landscaped	5	<u>0</u>
3. Shrubs and garden for beautification	5	<u>0</u>



C. PLAYGROUND FACILITIES

1. Playground for baseball, etc.	20	<u>0</u>
2. Swings (two or more)	5	<u>0</u>
3. Teeter-boards (two or more)	5	<u>0</u>
4. Volley ball court and balls	10	<u>0</u>
5. Additional play equipment	10	<u>0</u>
6. Drinking water	15	<u>0</u>
Maximum	135	<u>25</u>

III. EDUCATIONAL EQUIPMENTA. FURNITURE

1. Adjustable desks and chairs	20	<u>20</u>
2. Individual desk and chair units movable	10	<u>0</u>
3. Teacher's desk with lock drawer	10	<u>10</u>
4. Adjustable chair for teacher	5	<u>5</u>
5. Two or more other good chairs	10	<u>10</u>
Maximum	55	<u>45</u>

B. BLACKBOARDS

1. Sixteen or more linear feet per room	20	<u>20</u>
2. Made of slate	10	<u>10</u>
3. Correct height (24 to 26 inches)	10	<u>0</u>
4. Chalk trays	5	<u>5</u>
5. Sufficient noiseless erasers	5	<u>5</u>
Maximum	50	<u>40</u>



C. TEXT BOOKS AND SUPPLEMENTARY SUPPLIES

1. Textbooks modern	25	<u>25</u>
2. Textbooks sufficient in quantity	25	<u>25</u>
3. Covered wall maps of world	5	<u>5</u>
4. Covered wall map of United States	5	<u>5</u>
5. Covered wall map of New England	5	<u>5</u>
6. Covered wall map of Massachusetts	5	<u>5</u>
7. Globe not less than 12 inches in diameter	5	<u>5</u>
8. Large dictionary	5	<u>5</u>
9. Large dictionary with standard or shelf	5	<u>0</u>
10. School library (not fewer than 25 books conforming to state reading lists for each grade above third)	25	<u>25</u>
11. Set of some standard encyclopedia	10	<u>0</u>
12. Encyclopedia adapted for children	15	<u>0</u>
13. Atlas	10	<u>0</u>
Maximum	145	<u>105</u>

D. MISCELLANEOUS

1. Thermometer	5	<u>5</u>
2. Pencil sharpener	10	<u>10</u>
3. First aid outfit	15	<u>15</u>
4. Sufficient fire extinguishers	10	<u>0</u>
5. Flexible mats at doors	5	<u>0</u>
6. Wastebaskets	5	<u>5</u>
7. Cleaning instruments and materials	10	<u>10</u>



8. Wall pictures	10	<u>10</u>
9. Manual training equipment	10	<u>0</u>
10. Some equipment for training in clothing	10	<u>0</u>
11. Some equipment for training in foods	10	<u>0</u>
12. Radio receiver	10	<u>0</u>
Maximum	110	<u>55</u>

Building	505	285
Grounds	135	25
Equipment	<u>360</u>	<u>245</u>
	1000	555

Norms --- 1 room average

2 room average



In comparing the two score cards used, the one devised by the group of superintendents was the more recent (dated 1940) and it was found that greater speed could be made in scoring. The validity of this score card is not to be compared to the one devised by C. D. Strayer and N. L. Engelhardt (dated 1920) for in the latter, the opinions of about 250 judges were utilized in dividing among the sub-items the total number of points allotted to the ideal school situation. The median judgement of this group was used in each instance as a basis for determining the number of points to be allotted to any of the sub-divisions on the score card.

The lot had a very rough surface and, where grass was in evidence, it showed that it was seldom cut. The school grounds in one case were so low that after rainy weather the area in front of the main entrance was either covered with mud or water. It was found in every case that the buildings took up a very small part of the site, leaving ample space for playgrounds for both girls and boys as well as a plot for a school garden. In each instance, the entire area was used as a playground -- no particular section being set apart for either play or gardening. The play apparatus for the children at most schools was very inadequate and at three schools none was found at all.

All schools visited, with the exception of one, were located in small, rather attractive communities where the houses seemed to be well kept, but it was surprising to note the lack of police in the local school grounds.



## SURVEY

Permission to visit the various schools to be scored was obtained from the superintendents of schools of the different districts.

### Sites

The procedure followed in each case was to examine the school site with respect to the amount used for I. Lawns and Landscape; II. Buildings; III. Recreation; IV. Gardening. None of the school sites showed any evidence of lawns or plantings around the school building. In all cases the lot had a very rough surface and, where grass was in evidence, it showed that it was seldom cut. The school grounds in one case were so low that after rainy weather the area in front of the main entrance was either covered with mud or water. It was found in every case that the buildings took up a very small part of the site, leaving ample space for playgrounds for both girls and boys as well as a plot for a school garden. In each instance, the entire area was used as a playground -- no particular section being set apart for either play or gardening. The play apparatus for the children at most schools was very inadequate and at three schools none was found at all.

All schools visited, with the exception of one, were located in small, rather attractive communities where the houses seemed to be well kept, but it was surprising to note the lack of pride in the local school grounds.



### School Buildings

Every school was of the one-story type, with fire resisting roofs. The outside paint was poor, except at two schools, which had been recently painted.

Building foundations were made of stone or cement and all were in good condition.

Only three schools had basements and of these, only two had inside entrances to the basement. Foundation walls, with one exception, were of uniform height -- approximately two feet above the ground line. Where there were basements, the natural lighting was very inadequate.

None of the buildings were fireproof -- all of them having been built at least thirty years ago.

There were usually two main entrances to the building. The doors were located in the front, opened out, and were three by seven feet in size. These were kept unlocked during school hours.

### Classrooms

Maximum pupil capacity per room ----- 36

Maximum pupil enrollment per room ----- 26

Minimum pupil enrollment per room ----- 12

Maximum floor area per room ----- 990 sq. ft.

Minimum floor area per room ----- 540 sq. ft.

The greatest area per child of pupil capacity was twenty-seven square feet and that of child enrollment was thirty-eight square feet.

The greatest number of cubic feet per child of pupil capacity was 462 and that of child enrollment 533.



Natural light came from the pupils' left in one building only; from the left and right in three buildings; and from the left, right and rear in all other buildings.

The usual ratio of window area to floor area was 1:5.

The height of the windows from the floor varied from two feet eight inches to three feet six inches. The distance from the desk top to the window sill varied from six inches to eighteen inches. The wall space from the tops of the windows to the ceiling varied from eighteen inches to four feet.

#### Interior of Walls

The walls and ceiling at all the schools visited were tinted according to the approved plan. The approved colors are ivory or cream-white for the ceilings and light buff or dark cream for the upper walls. The finish of the lower walls at all schools but two was matched sheathing, stained and varnished. All vestibules and coatrooms were finished to match the classrooms.

#### Blackboards

The material used for blackboards was found to be slate with one exception and then wall board was used which was painted black.

The height of the blackboards in the different schools varied from two feet to two feet six inches.

There seemed to be ample blackboard surface in all schools.



### Window Shades

All window shades were hung from the top of the windows -- a bad practice as that is the best source of light. Window shades should be hung so that they will admit light from any part of the window. There were only two schools where the color of the window shades harmonized with the color of the room. Green shades predominated.

### Closets and Storage Space

Every school had a storage space for books and paper but these were found to be altogether too small and with no means of natural lighting and, in most cases, no artificial light.

### Desks

All pupils' desks were of the adjustable type with ample space between the rows for passing. The teachers' desks were of the office type with the body raised from the floor to allow for cleaning underneath.

### Other Equipment

All artificial lighting was of the direct type except at two schools where semi-indirect lighting was used. In the schools where direct lighting was used it seemed to be insufficient to meet the pupils' needs.

### Fire Equipment

Only two schools had fire extinguishers and there were inspected at certain intervals to insure that they were in proper condition. The only explanation for the lack of fire protection that can be made is, I presume, that all these buildings were of the one story type giving ample time for the pupils to leave the building. The idea that the



building might be saved seemed to be a minor factor.

Regular fire drills were conducted in all schools at least once a month and the time taken to empty the building varied from one to two minutes.

#### Clocks - Bells

All schoolrooms had clocks and bells but the latter were usually the hand type.

#### Cloakrooms and Vestibules

The school buildings all had two main entrances that opened into vestibules. These vestibules in every case were used as coatrooms with no attempt being made to heat them and with very poor lighting. The spaces set apart for cloakrooms were always so small that individual lockers could not be used. Hooks were fastened to the walls. These varied in height to meet the needs of the children of different ages.

#### Heating and Ventilating

Heating equipment found was of three types -- the hot air furnace, the jacketed heater on the first floor of the building and also the stove in the middle of the room.

Where the hot air furnace was placed in the basement it was not enclosed in a fireproof room. At one school, where this type of heater was used, it was found to be inadequate so extra heaters were placed in the classrooms. There were no foul air ducts noticeable in the walls or foundations of any of the buildings so it was assumed that ventilation was direct from the windows.

Fuel was found to be stored in various places -- in some cases in



the basement; in one school, in a small room directly off the coatroom; and in two cases, in out buildings.

### Water Supply Systems

Two schools were connected with a community water system. All others had driven wells and one of the schools had installed an electric pump. The majority of the schools were equipped with ordinary hand pump. This pump was frequently in the school building while others were on the school grounds, at least one hundred feet from the school building. It was observed in one instance that water was taken from the well of a nearby farm.

At only three schools was it actually known when the last test of the water supply was made.

Where a hand pump was used, each classroom was provided with a water cooler with a bubbler fountain attached. Often the water had to be carried some distance and then poured into the top of the water cooler.

At some schools the pupils bought their own glasses. Paper towels and soap were furnished in all the schools and for wash-up purposes the agate wash basin was used except at two schools; one of which had a modern lavatory and the other had an iron sink.

All of these schools could easily have had a pressure water system with modern wash bowls; for all were wired for electricity.

At none of the schools visited was any provision made for shower baths or hot water.

*Do these  
constitute  
common  
equipment?  
Anything  
inadequate  
not finding  
them?*



### Toilet Systems

This equipment was the most deplorable of anything found in any of the schools. Two of the schools had the toilets in the main building and one of these had modern flush toilets. All others were located in out buildings; usually in the rear of the main building. The toilets when located in out buildings had poor natural lighting and no artificial lighting. The buildings themselves were in poor condition and not at all secluded and very unsanitary. This condition could be easily remedied and should be, if these small communities insist in having their own schools. All that would be necessary would be to build a small addition to the main building. This would in no way detract from the appearance of the building, for that would be impossible.

### Cleaning System

All janitorial work was done outside of school hours. In all cases the rooms were swept with a broom. At none of the schools was sweeping-compound used. Most of the dusting was done with an oiled cloth and in the majority of cases the teachers and the pupils did the dusting during school hours. The floors were smooth in all the schools but most of them were very dark from repeated applications of oil. There was only one school where the interior finish was in real good condition; in all the others the paint needed cleaning and in some instances, should be repainted.

### Special Rooms

a) Library. In none of the schools was there a separate room set apart for a library but there was a reading table set up in the class-



room where the children did their reading. Every school was well supplied with book shelves and book cases. Another noticeable omission in all the schools was the general-purpose room which could be used for private conferences and could also be used as the teachers' room and visiting nurse's quarters.

#### Lunchroom

This type of room was not found in any of the schools. At only one school was there any attempt made to serve the pupils hot lunches. Here a small stove was used to heat soup for the children.

In fact, the schools were so small that there was no space for these special rooms -- such as the library, community and general purpose room. Lack of space, I suppose, is the main reason why there were no provisions made for industrial and household arts.

#### Scores

The highest total score for any one building was 558 points.

##### I Site:

Perfect Score	Assigned Score
160 points	105 points
	(Above score included 10 points for flagpole)

Flagpole: -- All the buildings had a flagpole. As it is a state law in Massachusetts that one be placed on the school grounds, all the schools were scored 10 points for this.

##### II Building

Perfect Score	Assigned Score
200 points	126 points

##### III Service System

Perfect Score	Assigned Score
250 points	155 points



## IV Classrooms

Perfect Score  
225 points

Assigned Score  
162 points

## V Special Rooms

Perfect Score  
165 points

Assigned Score  
10 points

Only careful observation is necessary to indicate the importance of the rural school. In the city, even though the child is not at school, there is likely to be a public library, perhaps an art gallery, newspapers, magazines, books, records, and other educational aids, all of which are more or less educational. In the rural child most of these facilities may be lacking, which means that the school may possibly be the only educational agency, outside the home, in the community."

The improvement of the rural school building and its equipment is

being encouraged by many states through the drafting and planning of

the new service is available to those towns which have adopted --

the passing of the school law of 1917, which was the first step of

the new law. Some of the modern structures and the result of

the new planning and construction are shown in the following

schools, which are shown in the following schools, which are

shown in the following schools, which are shown in the following

shown in the following schools, which are shown in the following

shown in the following schools, which are shown in the following

shown in the following schools, which are shown in the following



### Summary

The whole rural school situation is very skillfully summarized in Recent Trends in Rural Planning by William E. Cole and Hugh P. Crowe when they state

"Only casual observation is necessary to indicate the intrinsic value of the rural school. In the city, even though the child is out of school, there is likely to be a public library, perhaps an art gallery, newspapers, magazines, human contacts in abundance, the cinema and the like, all of which are more or less educational. To the rural child most of these facilities may be lacking, which means that the school may possibly be the only educational agency, outside the home, in the community."

The improvement of the rural school building and its equipment is being encouraged by many states through its drafting and planning bureaus. This free service is available to those towns wishing such advice -- thus reducing the expense of new construction to the actual cost of material and labor. Some of the modern structures show the result of this state planning system in that rooms and appliances are arranged so as to promote a progressive type of education. Many schools, because of their location, cannot be abandoned. Therefore, the rural school will always be with us and in order to give the child of the rural community an education comparable to the urban child, buildings and equipment must be elevated to modern educational standards.



Fig-1

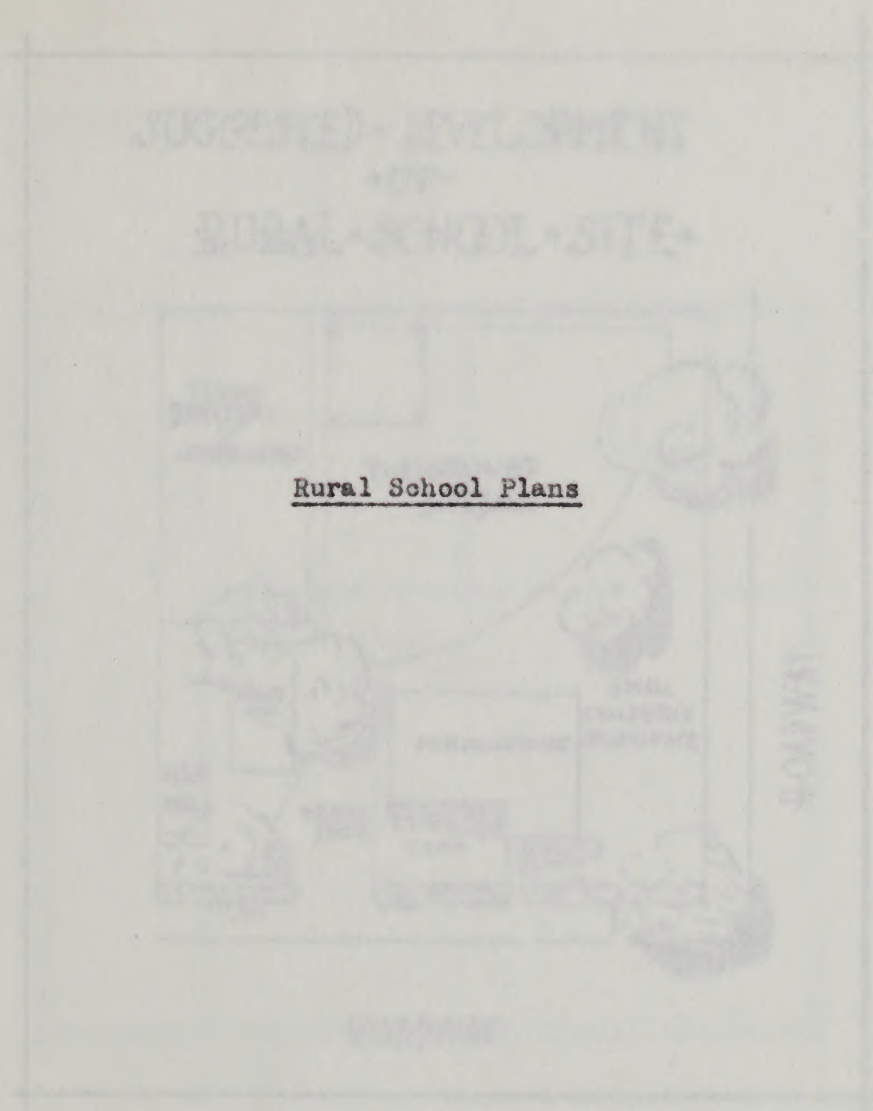
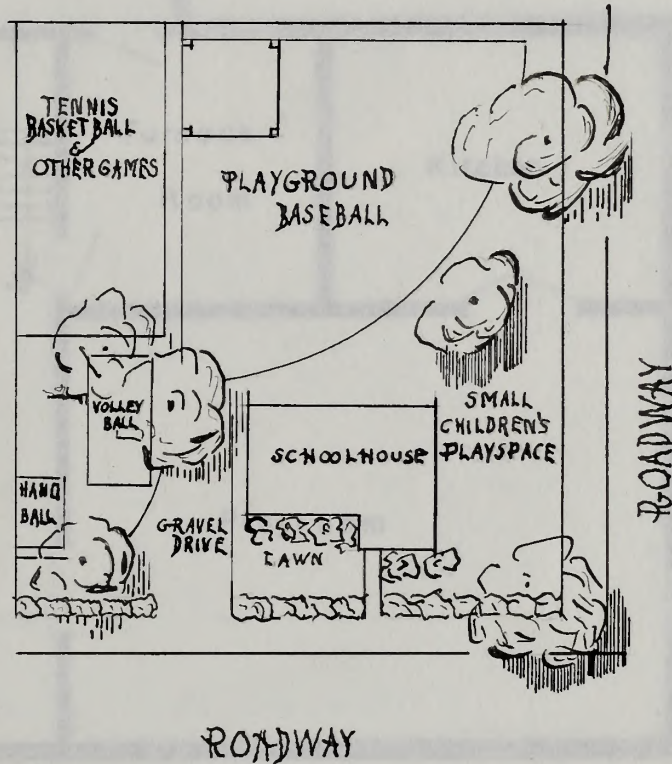




Fig-1



# SUGGESTED DEVELOPMENT OF RURAL SCHOOL SITE

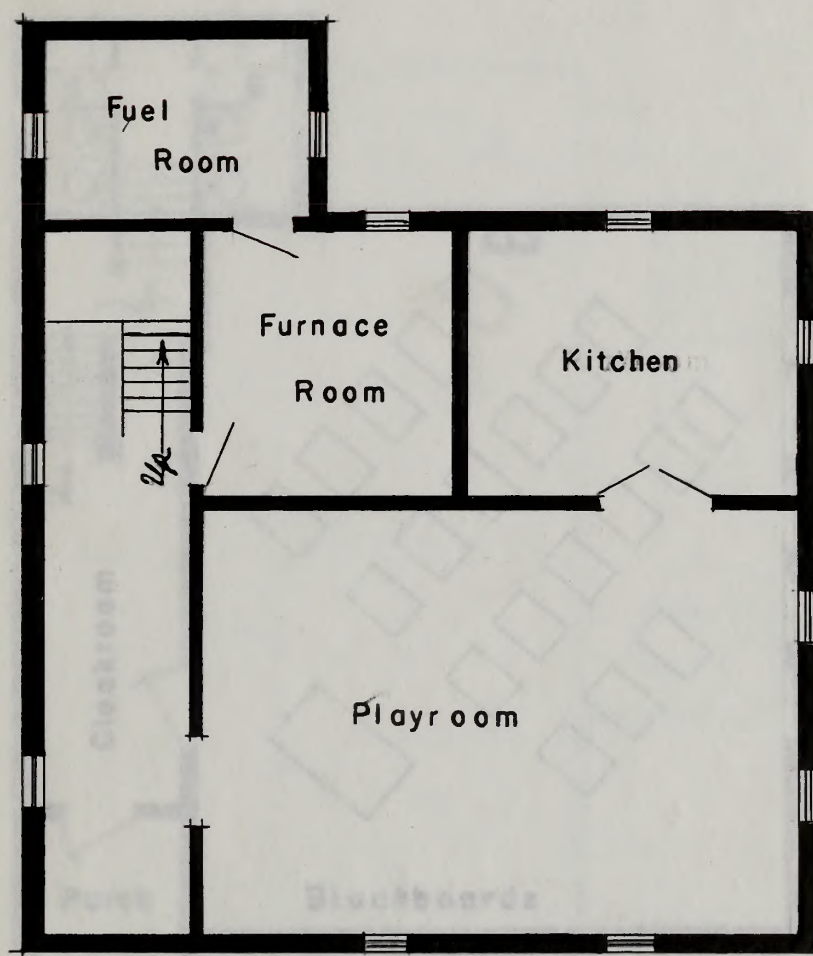


Basement Plan  
of a

Modern School Building



Fig.- 2



Basement Plan  
of a  
Modern School Building

Modern School Building  
of a  
Basement Plan

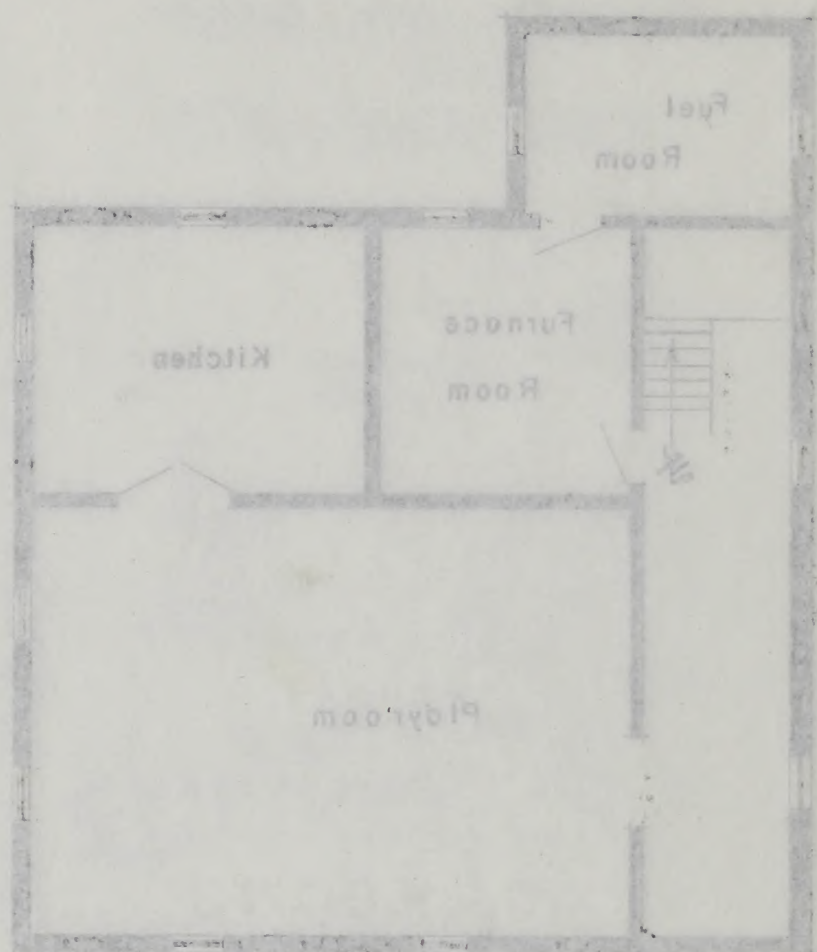
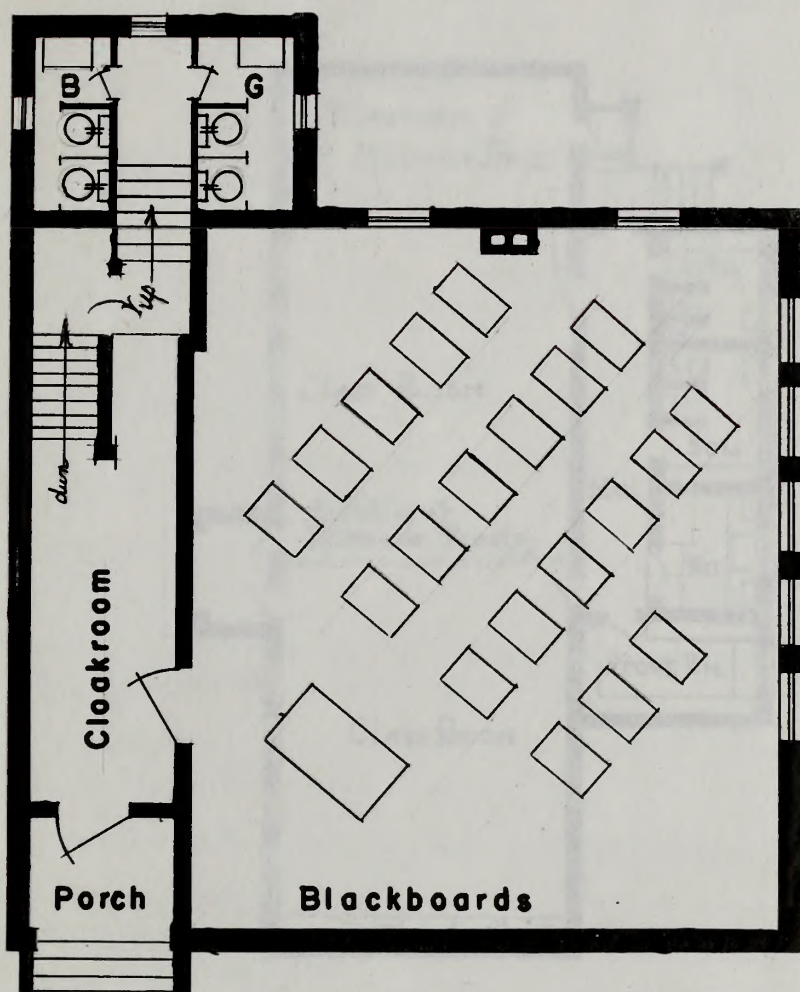


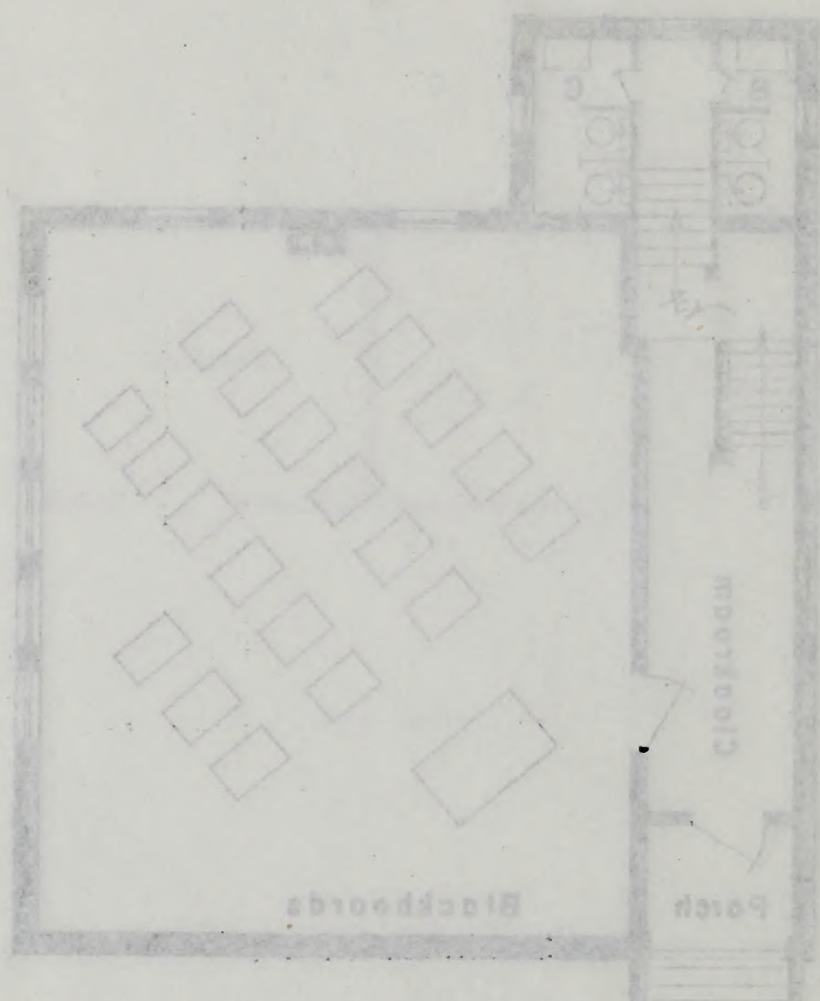
Fig. 2

Fig-3



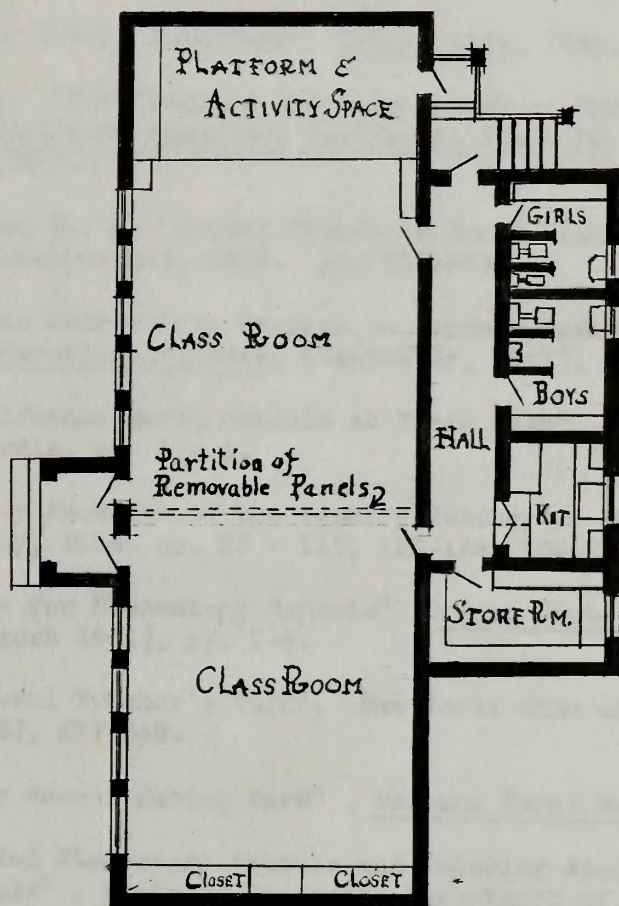
Floor Plan  
of a  
Modern School Building

Fig-3



Floor Plan  
of a  
Modern School Building

Fig - 4



Floor Plan of a  
Modern School Building  
Without Basement



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